

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Currently Amended): A dried hydrogel, prepared by polymerizing an olefinically unsaturated carboxylic acid or its salts in a polymerization reaction mixture;

admixing the polymerization reaction mixture, before, during or after the polymerization and before drying, with an alkali metal silicate of the general formula I



wherein M is an alkali metal and n is from 0.5 to 4;
postcrosslinking a resulting polymer;
thereby obtaining a hydrogel containing said postcrosslinked polymer; and
drying said hydrogel at an elevated temperature, to obtain said dried hydrogel;
wherein said postcrosslinking is effected by a crosslinker which is a compound containing two or more groups that form covalent bonds with the carboxyl groups of said polymer.

Claim 2 (Previously Presented): The dried hydrogel as claimed in claim 1, prepared by admixing said alkali metal silicate in an amount of from 0.05% by weight to 100% by weight, reckoned on SiO₂ and based on a total monomer weight.

Claim 3 (Previously Presented): The dried hydrogel as claimed in claim 1, prepared by admixing said alkali metal silicate in an amount of from 1% by weight to 70% by weight, reckoned on SiO₂ and based on a total monomer weight.

4. (Previously Presented) The dried hydrogel as claimed in claim 1, prepared by admixing said hydrogel after said polymerization with a mixture of an alkali metal silicate and an alkali metal hydroxide, to thereby neutralize said polymer contained in said hydrogel.

5. (Previously Presented) The dried hydrogel as claimed in claim 1, prepared by admixing said hydrogel after said polymerization with a mixture of an alkali metal silicate and an alkali metal carbonate, to thereby neutralize said polymer contained in said hydrogel.

6. (Previously Presented) The dried hydrogel as claimed in claim 1, prepared by neutralizing said polymer contained in said hydrogel to a pH of from 3.5 to 9.0.

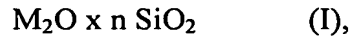
7. (Previously Presented) The dried hydrogel as claimed in claim 1, wherein a drying temperature is in the range from 40°C to 300°C.

8-9. (Cancelled)

Claim 10 (Currently Amended): A process for preparing dried hydrogel particles, comprising:

polymerizing an olefinically unsaturated carboxylic acid or its salts in a polymerization reaction mixture, to obtain a solid gel containing a polymer;

admixing the polymerization reaction mixture before or during the polymerization or admixing said solid gel with an alkali metal silicate of the general formula I



wherein M is an alkali metal and n is from 0.5 to 4;

thereby obtaining particles of a gel;

postcrosslinking said particles of the gel; and

drying said particles of the gel at an elevated temperature, to obtain said dried hydrogel particles;

wherein said postcrosslinking is effected by a crosslinker which is a compound containing two or more groups that form covalent bonds with the carboxyl groups of said particles of the gel.

Claim 11 (Previously Presented): A method for absorbing aqueous solutions, dispersions and emulsions, comprising:

contacting the dried hydrogel according to claim 1 with an aqueous solution, dispersion or emulsion.

Claim 12 (Previously Presented): An article, comprising:

the dried hydrogel according to Claim 1;

said article being capable of absorbing an aqueous fluid.

13. (Previously Presented) The dried hydrogel according to claim 1 which is capable of absorbing an aqueous fluid.

14. (Previously Presented) The dried hydrogel according to claim 1, wherein said olefinically unsaturated carboxylic acid is selected from the group consisting of acrylic acid, methacrylic acid, crotonic acid, 2-acryl-amido-2-methylpropanesulfonic acid, 2-acryl-amido-2-methylpropanephosphonic acid, vinylphosphonic acid and mixtures thereof.

15. (Canceled)

16. (Previously Presented) The dried hydrogel according to claim 1, wherein M in formula (I) is sodium.

17. (Previously Presented) The dried hydrogel according to claim 1, wherein M in formula (I) is potassium.

18. (Currently Amended) Dried hydrogel particles, prepared by
polymerizing an olefinically unsaturated carboxylic acid or its salt in a
polymerization reaction mixture, to obtain a solid gel containing a polymer;
admixing said solid gel with an alkali metal silicate of the general formula I



wherein M is an alkali metal and n is from 0.5 to 4;

thereby obtaining particles of a gel;

postcrosslinking said particles of the gel;

drying said particles of the gel at an elevated temperature, to obtain said dried hydrogel particles;

wherein said postcrosslinking is effected by a crosslinker which is a compound containing two or more groups that form covalent bonds with the carboxyl groups of said particles of the gel.

19. (Canceled)

20. (Previously Presented) The dried hydrogel according to claim 1, wherein said polymer is water-insoluble.

21. (Previously Presented) The dried hydrogel according to claim 1, wherein said polymer is a copolymer.

22. (Canceled)

23. (New) The dried hydrogel according to claim 1, wherein said alkali metal silicate is soluble in water.

24. (New) The dried hydrogel according to claim 1, wherein said alkali metal silicate is admixed with said polymerization reaction mixture after the polymerization and before drying.

BASIS FOR THE AMENDMENT

New Claims 22 and 23 have been added as supported by Claim 1 and at page 3, lines 1-6 of the specification.

No new matter is believed to have been added by entry of this amendment.

Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-7, 10-14, 16-18 and 20-23 will now be active in this application.